Technical Sheet

AH
Anchors for frame uprights

AH anchor and its US40/50/10G washer (sold separately) are recommended for reinforcing the corners of wood-frame walls subjected to uplift forces. This connector ensures a significant absorption of tensile load. Moreover, its low width allows it to be fastened to a 45 mm wide upright.



Features

Material

- **AH29050/2-FR**: galvanized steel S250GD + Z275 according to NF EN 10346.
- **US40/50/10G washer**: steel S235JR + hot-dip galvanized finish.

Benefits

- Low-width anchor for use in frame uprights 45 mm wide.
- Anchors the wood-frame wall solidly into the ground (recommended in seismic zones).
- Reinforces the upright-lower plate connection by preventing the uplift of the upright.

Thus, energy is dissipated in the panel through the stitching.

Applications

Suitable On

- Wood, concrete

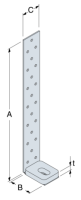
When to Use

- Used in wood-wood and wood-concrete assemblies

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Technical Data



Dimensions and drill holes

Reference	Connector Dimensions														
	Other				Product Dimensions[mm]				Joist				Flange B		
	Tun / DB nr.	NOB nr.	Qty per Box	Weight[kg]	A[mm]	B[mm]	C[mm]	t[mm]	Round			Obround	Round		
									Ø5	Ø9	Ø13	Ø13.5x25	Ø5[mm]	Ø9	Ø13
AH9035	8977746	21594544	100.0	0.09	90	35	40	2.5	6	1	-	-	4	1	-
AH16050	7742190	21594510	100.0	0.18	160	50	40	3	10	-	3	-	4	-	1
AH19050/2	5385138	43582726	100.0	0.15	192	52	40	2	16	-	-	-	-	-	1
AH29050/2	5385183	42163584	50.0	0.21	292	52	40	2	23	-	-	-	-	-	1
AH39050/2	TUN931	42290394	25.0	0.28	390	52	40	2	27	-	-	-	-	-	1
AH19050/4	1432682	42290356	50.0	0.3	194	54	40	4	12	-	-	-	-	-	1
AH29050/4	TUN932	42290375	25.0	0.42	294	54	40	4	18	-	-	-	-	-	1

Product characteristic capacities

Reference	Holdowns capacity				
	Product capacities - Timber to Concrete				Characteristic capacities - Timber C24
	Number of Fasteners				Characteristic capacities - Timber C24[kN]
	Joist		Flange B		$R_{1,k}$
	Qty	Type	Qty	Type	
AH9035	5	CNA	1.0	M8	4.0 / kmod
AH16050	n ≥ 2	CNA	1.0	M12	min (n x Rlat.k ; 15.3/kmod)
AH19050/2	n ≥ 2	CNA	1.0	M12	min (n x Rlat.k ; 15.2/kmod)
AH29050/2	n ≥ 2	CNA	1.0	M12	min (n x Rlat.k ; 15.2/kmod)
AH39050/2	n ≥ 2	CNA	1.0	M12	min (n x Rlat.k ; 15.2/kmod)
AH19050/4	n ≥ 2	CNA	1.0	M12	min (n x Rlat.k ; 19.8/kmod)
AH29050/4	n ≥ 2	CNA	1.0	M12	min (n x Rlat.k ; 19.8/kmod)

$R_{lat,k}$ = Characteristic load-carrying capacity per shear plane per fastener (CNA or CSA)
n = n_{ef} = effective number of fasteners acc. to Eurocode 5 (8.3.1.1)
Required calculated pull-carryring capacity for bolt: $N_{R.d} = F_{1,d} \times 2,33$; the required calculated shear capacity for bolt $V_{R.d} = F_{1,d} \times 0,79$
AH9035 is only usable for connection to rigid support.

Installation

Fixing

<u>On concrete:</u>
***Configuration 1 or 2*:**

- *Mechanical anchor*: WA M12-104/5 dia. 12
- *Chemical anchor*: AT-HP resin + LMAS M12-150/35 rod.

***Configuration 3*:**

- *Mechanical anchor*: WA M12-219/120
- *Chemical anchor*: AT-HP resin + LMAS M12-150/35 threaded rod per metre and tfix minimum 110 mm.

<u>On wood:</u>

- CNA annular ring-shank nails dia. 4.0 x 35 or dia. 4.0 x 50 mm (the number of nails to be used depends on the application configuration).

Installation

- Use only the fasteners specified for each of the configurations while precisely respecting the edge distances.
- The US40/50/10G washer must be used to guarantee the forces given in the table below.

This prevents the AH anchor from unfolding during uplift. The washer is sold separately.
RECOMMENDATIONS FOR USE:
It is recommended to use the AH anchor + US 40/50/100 washer at the end of each wood frame, at the backing of the uprights and perpendicular to each opening. This recommendation does not replace a verification carried out by a competent engineering firm.

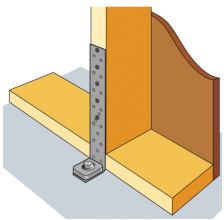


Fig. 1: Installation with one plate in the bottom, 45 mm

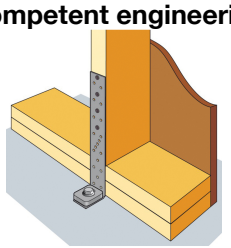


Fig. 2: Installation with 2 plates in the bottom, 45 mm

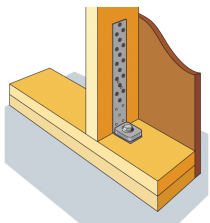
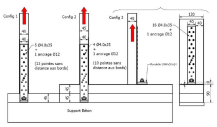


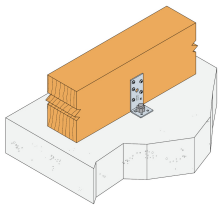
Fig. 3: Installation of inner wall

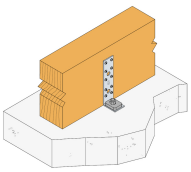


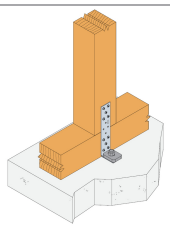
View over various nailing options

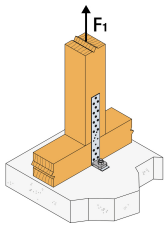
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2026-11-19